**-** 2 -

Please amend the paragraph on page 2, spanning ...ines 20-28 to read as follows:

the method according to claim I has now been invented for distributing According to one aspect of the invention feed-water is effectively distributed to the beginning of the feat-transfer surfaces of a falling film evaporator by removing the gases dissolved in the water and preventing them from redissolving at the same time. Another object of the invention is the device according to claim 2 which makes it possible Indiccordance with another aspect, in a falling film evaporator, in the same operation, to remove the gases are removed from the feed-water and to it is distributed it evenly into the tube bundle of the evaporator. The apparatus comprises an evaporator top and at least one spraying device arranged therein. In this case, the spraying device is a nozzle, a mist sprayer or a similar device for creating a spray of liquid of a given shape.

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**-** 3 -

- (Cancelled)
- (Cancelled)
- 3. (Currently Amended) An apparatus as defined in that 2 further including for removing dissolved gases from that to be evaporated in connection with a falling film the evaporator, which apparatus comprises:
- an arrangement of vertical evaporator channels which convert water passing therethrough into vapor;

a trough having a perforated bottom, the trough lying above the an upper end of the evaporator channels arrangement;

at least one spraying device for breaking heated

[leed-water into a spray of droplets having a spray pattern

substantially corresponding to an area of the upper end of the

evaporator channels arrangement; and,

at least one separated gas outlet for the removal of lases separated from the sprayed droplets prior to the droplets entering the upper end of the evaporator channels arrangement reducing dissolved gas contamination of the vapor.

- 4. (Currently Amended) The apparatus as defined in tlaim  $\frac{2}{3}$  further including:
- a substantially hemispherical chamber covering the apper end of the evaporator channel arrangement such that the apper end of the evaporator channel arrangement forms a plane side of the hemispherical chamber; and,

the separated gas outlet being defined in the nemispherical chamber for removing the separated gases before they can enter the evaporator channel arrangement.

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5. (Previously Presented) The apparatus as defined in claim 3, further including:

a chamber covering the upper end of the evaporator channel arrangement, the separated gas outlet being defined in the chamber.

6. (Currently Amended) A method of feeding water to heat transfer surfaces of a falling film evaporator having vertical evaporation channels having upper and lower ends, the method comprising:

spraying drops of water with absorbed atmospheric pases to distribute the water over the upper ends of the vertical evaporation channels of the falling film evaporator;

simultaneously with the spraying, (1) separating the itmospheric gases from the water and (2) discharging the separated atmospheric gases such that the atmospheric gases are temoved from the water and the water is distributed over the upper ends of the vertical evaporation channels;

evaporating the water <u>from which the atmospheric</u>

<u>lases have been removed</u> in the vertical evaporation channels <u>to</u>

<u>lenerate water vapor with reduced atmospheric gas contamination</u>;

and,

discharging the water vapor with reduced atmospheric ras contamination from the lower ends of the vertical evaporation channels separately from the separated gases, and maintaining the water vapor separate from the separated gases to prevent dilution of the water vapor with whereby re-dissolution of the separated gases is prevented.

7. (Original) The method as defined in claim 6 further including:

collecting the sprayed droplets into a layer of water above the upper ends of the vertical evaporation channels;

separating additional atmospheric gases from the water layer;

feeding water from the water layer into the upper ends of the vertical evaporation channels.

- 5 -

- 8. (Cancelled)
- 9. (Currently Amended) The apparatus as set forth in claim & 10 wherein the vertical evaporating channels upper and arrangement is confined to a circular area and further including a hemispherical the chamber mounted to the vertical evaporating channels upper end arrangement is hemispherical.
  - 10. (Currently Amended) The An apparatus as the fixed in claim 8 further including for removing dissolved atmospheric gases from water, the apparatus comprising:
- a falling film evaporator which includes a plurality

  of vertical evaporating channels, the vertical evaporating
  channels having upper ends arranged in an evaporator channel
  speer end arrangement for receiving water to be vaporized,
  product vapor exiting from a lower end of the evaporator
  channels;
- a chamber covering the evaporator channels upper end
  - a perforated plate mounted in the chamber above and separated from the evaporator channels upper end arrangement;

    at least one spraying device disposed in the chamber

    to break the water into a spray of droplets, the spray of device being approved onto the plate, the water passing through
- 15 <u>to break the water into a spray of droplets</u>, the spray of iroplets being sprayed onto the plate, the water passing through perforations in the plate to the evaporator channel upper ends; and
- at least one dissolved gas cutlet from the chamber

  for removal of the atmospheric gases separated from the water

  iroplets during spraying before the water droplets enter the

  avaporating channels, such that the product vapor has a lower
  concentration of atmospheric gases than the water.
  - 11. (Cancelled)
  - 12. (Cancelled)
  - 13. (New) An apparatus for feeding water to heat transfer surfaces of a falling film evaporator having vertical

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- 6 -

evaporation channels having upper and lower ends, the method comprising:

a separated gas cutlet disposed over the upper ends of the vertical evaporation channels;

a means for spraying drops of water with absorbed atmospheric gases to distribute the water over the upper ends of the vertical evaporation channels of the falling film evaporator such that simultaneously with the spraying, (1) the atmospheric gases are separated from the water and (2) the separated atmospheric gases are discharged through the separated jas outlet such that the atmospheric gases are removed from the vater and the water is distributed over the upper ends of the vertical evaporation channels;

the vertical evaporating channels evaporating the vater from which the atmospheric gases have been removed to generate water vapor with reduced atmospheric gas contamination which water vapor with reduced atmospheric gas contamination is discharged from the lower ends of the vertical evaporation channels separately from the separated gases, whereby re-dissolution of the separated gases is prevented.